General

Guideline Title

AAFP guideline for the detection and management of post-myocardial infarction depression.

Bibliographic Source(s)

Post-Myocardial Infarction Depression Clinical Practice Guideline Panel. AAFP guideline for the detection and management of post-myocardial infarction depression. Ann Fam Med. 2009 Jan-Feb;7(1):71-9. [85 references] PubMed

Guideline Status

This is the current release of the guideline.

The American Academy of Family Physicians (AAFP) reaffirmed the currency of this guideline in 2014.

Recommendations

Major Recommendations

The strength of recommendations (A-C) is defined at the end of the "Major Recommendations."

Recommendation 1

Patients having a myocardial infarction should be screened for depression using a standardized depression symptom checklist at regular intervals during the post-myocardial infarction (MI) period, including during hospitalization (Level A).

Insufficient data are available to support a recommendation of one particular symptom checklist over another.

Recommendation 2

Post-MI patients with a diagnosis of depression should be treated to improve their depression symptoms, with systems in place to ensure regular follow-up and monitoring of their treatment response and adherence to treatment (Level A).

The recommendation to screen for and treat depression in patients with myocardial infarction is based on randomized controlled trials showing improvement in outcomes for depression. Treatment of depression has not been found to improve cardiac outcomes per se, though the evidence does not yet exclude the possibility of a small benefit. The literature does not provide guidance regarding the effects of treatment of depression on adherence to tertiary prevention measures for coronary disease, such as diet, beta-blocker, or aspirin use. The diagnosis of depression will be informed, not determined, by the screening instrument results from Recommendation 1. Definitive diagnosis is ultimately the treating clinician's responsibility.*

*In the cardiology literature, tertiary prevention is often referred to as secondary prevention.

Recommendation 3

Selective serotonin re-uptake inhibitors (SSRIs) are preferred to tricyclic antidepressants for treatment of depression in post-MI patients (Level A).

Randomized controlled trials using SSRIs have shown improvement in measures of depression among post-MI patients. The evidence base for treatment with SSRIs is large enough and follow-up has been long enough to show that SSRIs are safe in the post-MI setting and do not share the adverse cardiac effects of tricyclic antidepressants. Insufficient evidence is available about other classes of antidepressants to make recommendations for or against their use in post-MI patients.

Recommendation 4

Psychotherapy may be beneficial for treatment of depression in post-MI patients. The existing evidence base does not establish what form of psychotherapy is preferred (Level B).

Trials of psychotherapy have used a variety of types of interventions. Taken as a whole, the body of evidence supports benefit in reducing depression symptoms, but not all studies supported this conclusion. Additionally, the heterogeneous nature of the interventions studied precludes direct comparisons.

Definitions:

Strength of Recommendation Grades

Strength of Recommendation	Basis for Recommendation
A	Consistent, good-quality patient-oriented evidence*
B	Inconsistent or limited-quality patient-oriented evidence*
C	Consensus, disease-oriented evidence,* usual practice, expert opinion, or case series for studies of diagnosis, treatment, prevention, or screening

*Patient-oriented evidence measures outcomes that matter to patients: morbidity, mortality, symptom improvement, cost reduction, and quality of life. Disease-oriented evidence measures intermediate, physiologic, or surrogate end points that may or may not reflect improvements in patient outcomes (e.g., blood pressure, blood chemistry, physiologic function, pathologic findings).

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Depression
- Myocardial infarction (MI)

Guideline Category

Diagnosis

Evaluation

Management

Screening

Treatment

Clinical Specialty

Cardiology

Family Practice

Geriatrics

Internal Medicine

Psychiatry

Psychology

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Guideline Objective(s)

To assist the primary care physician who is knowledgeable about depression management to improve practice

Target Population

Patients who have sustained ST-elevation myocardial infarction (STEMI) or non–ST-elevation myocardial infarction (NSTEMI)

Note: Patients with unstable angina and those with acute coronary syndrome relieved by revascularization (thrombolysis, angioplasty, or bypass surgery) have not been included in studies to date. The studies available do not generally distinguish between STEMI and NSTEMI.

Interventions and Practices Considered

1. Screening for depression using a standardized depression symptom checklist at regular intervals
2. Treatment measures for coronary disease, such as diet, beta-blocker, or aspirin use
3. Selective serotonin reuptake inhibitors (SSRIs) for treatment of depression in post-myocardial infarction (MI)
4. Psychotherapy

Major Outcomes Considered

- Prevalence of post-myocardial infarction (MI) depression
- Depression scores
- Performance characteristics of depression screening tools
- Cardiac event rates among depressed patients
- Nonfatal MI
- Fatal MI
- Morbidity

- All-cause mortality
- Quality of life
- Medication adherence
- Adherence to lifestyle modifications
- Cardiac health care utilization

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

2009 Original Guideline Document

Literature Search

Because two years had elapsed since the original evidence review, the Post-Myocardial Infarction (MI) Guideline Panel conducted a systematic update of the evidence by reviewing studies published since the Agency for Healthcare Research and Quality (AHRQ) Johns Hopkins University Evidence-based Practice Center (EPC) report. An updated literature search, addressing the same key questions as in the AHRQ EPC report, was performed covering the time period from April 2004 to November 15, 2006. Unlike the original evidence report, the updated report included only information from electronic searches (i.e., hand searches were excluded); however, the databases searched were the same as in the original AHRQ EPC report. Identical search terms were used for the MEDLINE and Cochrane databases. The search terms were slightly modified for the remaining 3 databases (i.e., EMBASE, CINAHL, and PsycINFO) because of high rates of overlap with the results from MEDLINE.

Literature Search Terms

MEDLINE

(myocardial infarction[mh] OR myocardial infarct*[tiab]) AND (depression[mh] OR mental disorder[mh] OR mood disorder[mh] OR depression[tiab] OR depressive symptom*[tiab] OR mood disorder[tiab] OR mental disorder[tiab] OR psychiatric disorder[tiab]) AND eng[la] NOT (animal[mh] NOT human[mh])

Cochrane

(myocardial NEXT infarction) AND depression

EMBASE

(HEART(W)INFARCT?/TI OR HEART(W)INFARCT?/MAJ) AND DEPRESSION/MAJ AND LA=ENGLISH AND PD=20040401:20070101

CINAHL

((myocardial OR myocardiac) AND infarct*) AND (depression OR depressive OR "mental disorder*" OR "mood disorder*" OR "psychiatric disorder*" OR "depressive symptom*")

PsycINFO

(myocardial(w)infarct?/de OR myocardial(w)infarct?/ti OR myocardial(w)infarct?/id) AND (depression OR mental(w)disorder? OR psychiatric(w)disorder? OR depressive(w)symptom?) AND la=english AND pd=20040401:20070101

The literature search resulted in 809 articles. After duplicates were eliminated, 2 reviewers independently scanned the titles and made a determination regarding relevance. The exclusion criteria used in the original evidence report were also used in the updated literature review. Specifically, articles were eliminated if (1) they were not in English, (2) they had no human data, (3) they had no original data, or (4) there was no full text article to review (i.e., it was a meeting abstract). If both reviewers agreed that an article was irrelevant, it was excluded from further

review. Any discrepancies were discussed and resolved by the reviewers.

All remaining articles were examined for relevance based upon their abstracts. Each of the 2 reviewers examined the abstracts independently. The reviewers again had to agree to the relevance of the article for inclusion or exclusion in the updated evidence review. All discrepancies were discussed by the reviewers and agreement was reached. If a citation did not have an abstract or the reviewers could not agree on the relevance, the full-text article was obtained. Consistent with the AHRQ EPC report, abstracts were marked for relevance to a key question, and those eliminated were given a reason for elimination.

Each full-text article was then examined for relevance to the research questions. Consistent with the original evidence report, information was also gathered related to the methods and quality of the study. Articles that were unrelated to the study questions were again eliminated resulting in a total of 31 articles for the updated evidence review (refer to Table 1 in the original guideline document for information on how articles related to the key questions). The panel made the determination that this new body of evidence did not contribute any substantive changes to the original evidence report but added more support to it; therefore, both the new evidence as well as the original report were used as the evidence sources for this guideline.

2014 Reaffirmation

The 2009 guideline was based on the following evidence report:

- Bush D, Ziegelstein R, Patel U, et al. Post-myocardial infarction depression. Evidence report/technology assessment No. 123. (Prepared by the Johns Hopkins University Evidence-Based Practice Center under Contract No. 290-02-0018.) AHRQ Publication No. 05-E018-2. Rockville, MD: Agency for Healthcare Research and Quality; 2005.

To reaffirm currency the Medline, CINAHL, and PsychInfo databases were searched using the following search terms: (myocardial infarction[mh] OR myocardial infarct*[tiab]) AND (depression[mh] OR mental disorder[mh] OR mood disorder[mh] OR depression[tiab] OR depressive symptom*[tiab] OR mood disorder[tiab] OR mental disorder[tiab] OR psychiatric disorder[tiab]) AND eng[la] NOT (animal[mh] NOT human[mh]). In addition, the Cochrane database was searched using (myocardial next infarction) and (depression). The date range for all searches was 2006 to 2014 and the searches were performed in May 2014.

Number of Source Documents

31 articles were included in the updated evidence review.

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Assessing Quality of Evidence

Study Quality	Diagnosis	Treatment/Prevention/ Screening	Prognosis
Level 1: good-quality, patient-oriented evidence	Validated clinical decision rule SR/meta-analysis of high-quality studies High-quality diagnostic cohort study*	SR/meta-analysis or RCTs with consistent findings High-quality individual RCT† All-or-none study‡	SR/meta-analysis of good-quality cohort studies Prospective cohort study with good follow-up
Level 2: limited-quality patient-oriented evidence	Unvalidated clinical decision rule SR/meta-analysis of lower quality studies or studies with inconsistent	SR/meta-analysis of lower quality clinical trials or of studies with inconsistent findings	SR/meta-analysis of lower quality cohort studies or with inconsistent results

Study Quality	Diagnosis	Treatment/Prevention/ Screening	Prognosis
	findings Lower quality diagnostic cohort study or diagnostic case-control study	Lower quality clinical trial Cohort study Case-control study	Retrospective cohort study or prospective cohort study with poor follow-up Case-control study Case series
Level 3: other evidence	Consensus guidelines, extrapolations from bench research, usual practice, opinion, disease-oriented evidence (intermediate or physiologic outcomes only), or case series for studies of diagnosis, treatment, prevention, or screening		

SR = systematic review; RCT = randomized controlled trial.

*High-quality diagnostic cohort study: cohort design, adequate size, adequate spectrum of patients, blinding, and a consistent, well-defined reference standard.

†High-quality RCT: allocation concealed, blinding if possible, intention-to-treat analysis, adequate statistical power, adequate follow-up (greater than 80 percent).

‡In an all-or-none study, the treatment causes a dramatic change in outcomes, such as antibiotics for meningitis or surgery for appendicitis, which precludes study in a controlled trial.

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

The American Academy of Family Physicians (AAFP) strength of recommendation taxonomy (SORT) framework was used to assess the quality of the evidence and grade the recommendations for this guideline (see http://www.aafp.org/online/en/home/publications/journals/afp/afpsort.html for details).

The Post-Myocardial Infarction (MI) Guideline Panel used the Agency for Healthcare and Research Quality (AHRQ) Evidence Report No. 123 completed by the Johns Hopkins University Evidence-based Practice Center (EPC) as the basis for constructing this post-MI depression clinical practice guideline. The report provides a full description of the methods used in the AHRQ systematic review.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

2009 Original Guideline Document

In 2003, the American Academy of Family Physicians (AAFP) Commission on Clinical Policies and Research (now Commission on Science) decided there was a need for an evidence review on the effect of depression on post-MI patients and successfully nominated the topic to the Agency for Healthcare Research and Quality (AHRQ). In May 2005, after publication of the AHRQ Evidence Report Number 123, the AAFP established the Post-Myocardial Infarction (MI) Guideline Panel, which was composed of family physicians who were well versed in practice guideline development and the care of post-MI patients with depression. The Post-MI Guideline Panel was charged with examining the evidence and developing an evidence-based clinical practice guideline for detection and treatment of depression post-MI.

The recommendations were developed by discussion among the Post-MI Guideline Panel members after review of the AHRQ Evidence Report No. 123, completed by the Johns Hopkins University Evidence-based Practice Center (EPC), and subsequent evidence. Decisions were by unanimous agreement; there was no voting, and the data were not amenable to formal methods such as meta-analysis.

Conclusions are based on high-quality randomized controlled trials unless otherwise stated. Each key question in this guideline is one of the questions of evidence addressed in that report as nominated by the AAFP. Recommendations derive from the findings of the evidence report, as well as additional relevant evidence published in English language peer-reviewed literature subsequent to the date the EPC review was in final form.

2014 Reaffirmation

After review of the updated 2006-2014 literature, the AAFP determined that no changes were required and reaffirmed the currency of the guideline in 2014.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendation Grades

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Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

The guideline was peer-reviewed before being reviewed and approved by the American Academy of family Physicians (AAFP) Commission on Science and by the AAFP Board of Directors.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

These guidelines will assist physicians in making clinical decisions regarding the care of their patients with post-myocardial infarction depression.

Potential Harms

No studies attempted to address potential harms from screening. Harm might result, for example, from treating patients whose depression would

spontaneously resolve or from using unnecessary resources.

Qualifying Statements

Qualifying Statements

- The recommendations are provided only as assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations.
- The authors of this article are responsible for its contents, including any clinical or treatment recommendations. No statement in this article should be construed as an official position of the Agency for Healthcare Research and Quality (AHRQ) or the U.S. Department of Health and Human Services.

Limitations

This guideline has several limitations, largely reflecting limitations in the available evidence base. Few studies separate incident from prevalent depression. The literature does not contain any studies that directly compare screened with unscreened groups after a myocardial infarction (MI), so conclusions in that area are based on intermediate outcomes and observational studies. Advances in the treatment of acute coronary ischemia have resulted in a population labeled as having "acute coronary syndrome," which includes those who, through emergency medical intervention, have been spared myocardial damage. It is not known whether this subgroup suffers the same incidence of and outcomes from depression as the confirmed infarction patients in the existing studies.

The AHRQ Johns Hopkins University Evidence-based Practice Center (EPC) panel included a range of specialties, but the evidence update and formulation of the guideline presented here were conducted entirely by family physicians. Both the AHRQ EPC panel and the present authors found that the studies available were methodologically too heterogeneous to permit formal meta-analyses. The available literature is focused on efficacy rather than effectiveness trials, and no good data on external validity exist as yet.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Post-Myocardial Infarction Depression Clinical Practice Guideline Panel. AAFP guideline for the detection and management of post-myocardial infarction depression. Ann Fam Med. 2009 Jan-Feb;7(1):71-9. [85 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2009 Jan (reaffirmed 2014)

Guideline Developer(s)

American Academy of Family Physicians - Medical Specialty Society

Source(s) of Funding

American Academy of Family Physicians

Guideline Committee

Post-Myocardial Infarction Depression Clinical Practice Guideline Panel

Composition of Group That Authored the Guideline

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Financial Disclosures/Conflicts of Interest

None reported

Guideline Status

This is the current release of the guideline.

The American Academy of Family Physicians (AAFP) reaffirmed the currency of this guideline in 2014.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the American Academy of Family Physicians (AAFP) Web site.

Print copies: Available from the American Academy of Family Physicians, 11400 Tomahawk Creek Parkway, Leawood, KS 66211.

Availability of Companion Documents

The following is available:

- Bush D, Ziegelstein R, Patel U, et al. Post-myocardial infarction depression. Evidence report/technology assessment No. 123. (Prepared by the Johns Hopkins University Evidence-Based Practice Center under Contract No. 290-02-0018.) AHRQ Publication No. 05-E018-2. Rockville, MD: Agency for Healthcare Research and Quality; 2005. Available from the Agency for Healthcare Research and Quality Web site.

Patient Resources

None available

NGC Status

This summary was completed by ECRI Institute on February 2, 2011. The information was verified by the guideline developer on February 14, 2011. The currency of the guideline was reaffirmed by the developer in 2014 and this summary was updated by ECRI Institute on November 4, 2014.

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